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TECHNICAL NOTES

MAY 2 1966

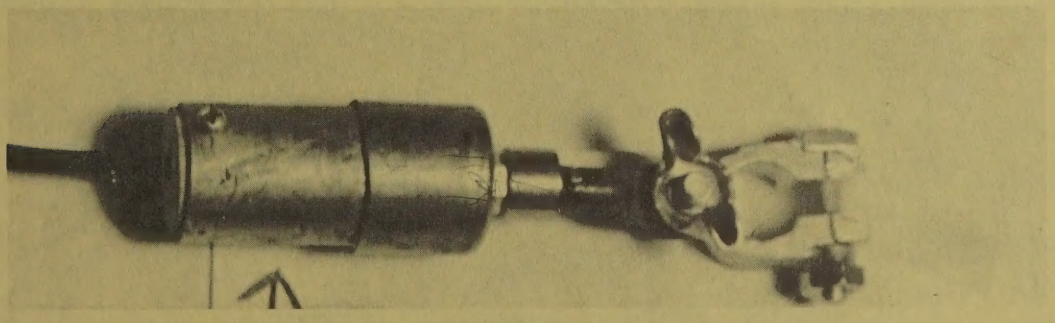
Protection of Radio Equipment by the Use of a Silicon Diode

Many electronic devices which contain transistors can be harmed by accidently subjecting them to reversed polarity at the power source. Although this equipment usually bears a warning label to this effect, accidents can happen resulting in expensive repairs.

The installation of an inexpensive silicon diode will permit the current to flow only in the proper direction and prevent damage to the equipment. A cash incentive award has been made in Alaska for suggesting the installation of GE-X4 diodes in Northern N450B transceivers.

The GE-X4 diode was subjected to reversed polarity up to 25 V.D.C. level, still protecting the power supply. Further tests showed that transmitter performance decreased with the diode in line, but was still up to rated performance of 35 watts output. During ordinary transmitting periods, as encountered in actual use, the diode did not heat enough to cause any problem.

The success of the circuit depends on the proper selection and installation of the diode, therefore, it should only be done by a qualified radio technician.



This illustrates a GE-X4 diode mounted in a heat sink and located in the power supply cable. (Photo by P. Calvin Gregg)

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